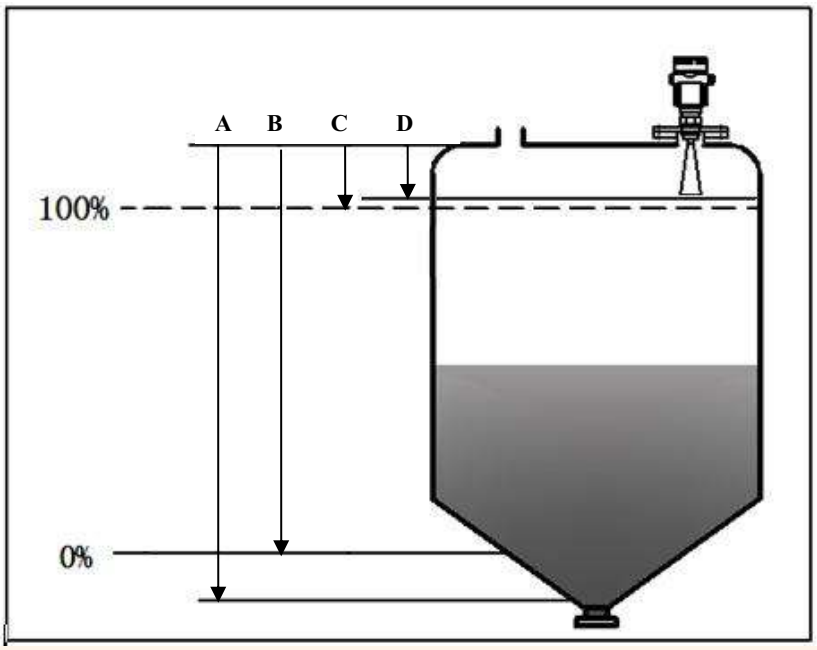
26GHz Intelligent Radar Level Transmitter

Product Description

DCRD1000A Series Radar Level Transmitter is high-frequency level measuring instruments with the maximum measuring distance up to 70 meters. The antenna is further optimized, and the new-type microprocessor can perform higher rate of signal analysis and processing, making the instrument available for complex measurement conditions, such as reactors, solid silos.

Working Principle

Radar level antenna emits narrow microwave pulses that transmitted down by the antenna. The microwave comes into contact with the measured medium surface then reflected back and receiving by the antenna system. The signal is transmitted to electronic circuit and partly convert to level signals (as the microwave featured with high propagation speed, it's almost instantaneous for the electromagnetic waves to reach the target and return to the receiver)



A. Measuring range setting

B. Low position adjustment

C. High position adjustment

D. Blind spot range

Measurement datum: thread bottom and flange sealing surface

Note: When applying the radar level transmitter, make sure that the highest material level cannot reach the measurement blind spot (the territory that indicate as D)

Features of 26GHz Radar Level Transmitter

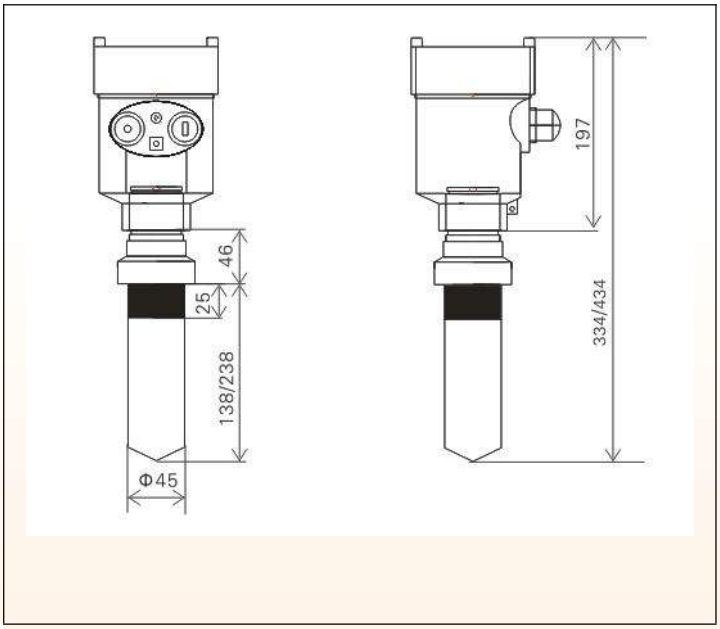
·Small antenna size, easy to install; non-contact radar, no wear, no pollution.
·Almost free from corrosion, foam impact; hardly affected by the change of the temperature, pressure and water vapor in the atmosphere.
·Severe dust environment is not likely to affect the work of the high-frequency level meter.
·Shorter wavelength can achieve better reflection for the inclined solid surface.
·The small field angle and energy concentration, enhanced echo capabilities, and beneficial to avoid interference.
·Minimized measuring blind spot can gain better result of small tank measurement.
·High SNR, even in the case of fluctuations can result in better performance.
·High frequency, the best choice to measure solids and low dielectric media.

DCRD1000A1 Radar Level Transmitter

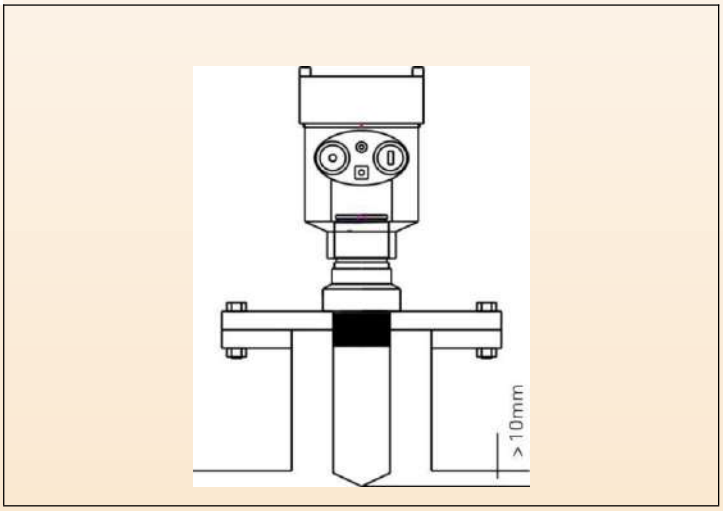
1. DCRD1000A1 Technical Parameter:

Application	All kinds of strong corrosive liquid, strong acid, strong base, Chemical liquid
Measuring range	20meter
Process connection	Screw thread, Flange
Medium Temperature	-40～120°C
Process pressure	-0.1～0.3MPa
Accuracy	±5mm
Frequency range	26GHz
Anti-explosion/safety grade	Exia II CT6 Ga, Exd ia II CT6 Gb / IP67
Signal output	4~20mA/HART(Two-wire/Four-wire) RS485/Modbus

2. DCRD1000A1 Outer Dimension



3. DCRD1000A1 Installation



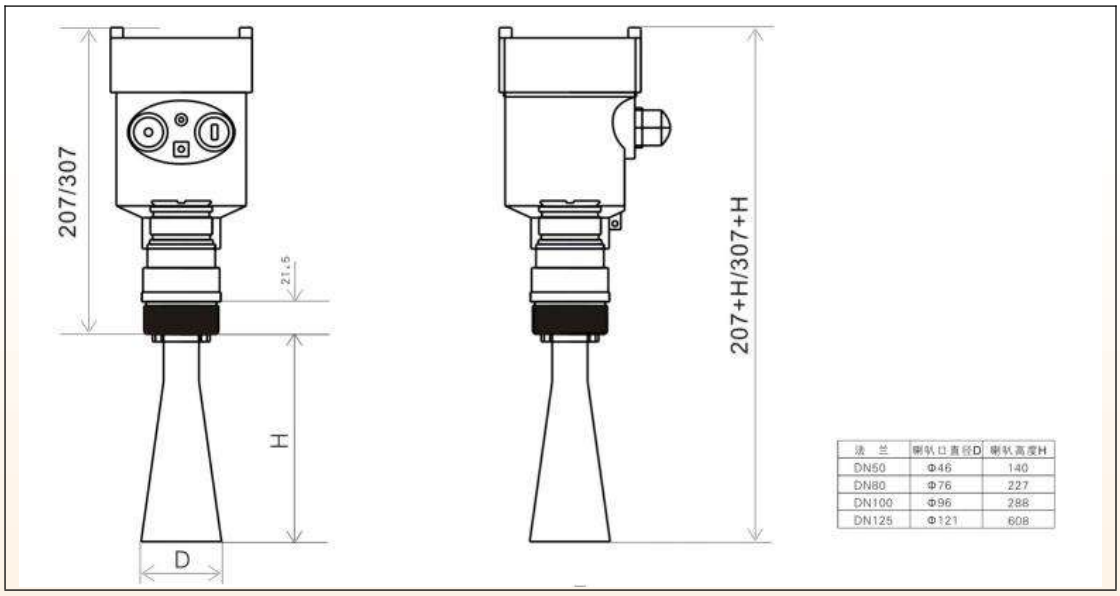
DCRD1000A1 Model selection			
Element	Code	Parameter	Note
Anti-explosion	P	Standard (non-Ex)	
	I	Intrinsic safety (Exia II CT6 Ga)	
	D	Intrinsic safety+Exd (Exd ia II CT6 Gb)	
Antenna Type / Material / Process temperature	F	Sealed horn Φ46mm / PTFE	
	H	Sealed horn Φ76mm / PTFE	
Process connection/Material	G	Screw thread G 1½A	
	N	Screw thread 1½NPT	
	A	Flange DN50 / PP	
	B	Flange DN80 / PP	
	C	Flange DN100 / PP	
	E	Flange DN150 / PP	
	Y	Special custom	
Antenna Extension	A	l00mm	
	B	200mm	
Electronic unit	2	(4 ~ 20) mA / 24V DC / HART two-wire system	
	3	(4 ~ 20) mA / 24V DC / HART four-wire system	
	4	(4 ~ 20) mA / (85~ 265) V AC / HART four-wire system	
	5	RS485/Modbus/(6~26)V DC	
Housing / Protection grade	L	Aluminum / IP67	
	G	Aluminum / IP67 Double chamber	
Cable entry	M	M20 * l. 5	
	N	½ NPT	
Live display/ programming	A	With	
	X	Without	
Special custom	Y	Special custom	

DCRD1000A2 Radar Level Transmitter

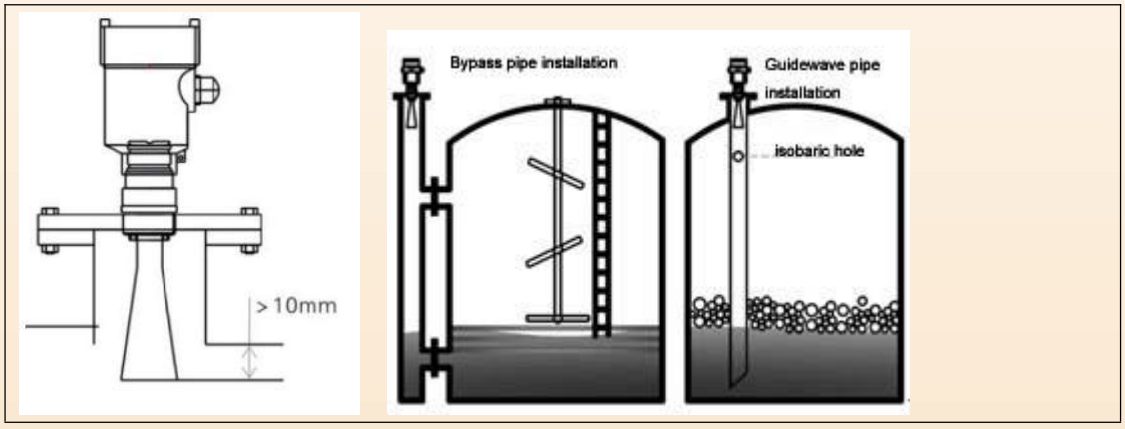
1. DCRD1000A2 Technical Parameter

Application	Slightly corrosive liquid, sewage, petroleum, river channel, heavy steam conditions, etc.
Measuring range	30 meter
Process connection	Screw thread, Flange
Medium Temperature	-40～250°C
Process pressure	-0.1～4.0MPa
Accuracy	±3mm
Frequency range	26GHz
Anti-explosion/ safety grade	Exia II CT6 Ga, Exd ia II CT6 Gb / IP67
Signal output	4~20mA/HART(Two-wire/Four-wire) RS485/Modbus

2. DCRD1000A2 Outer Dimension



3. DCRD1000A2 Installation



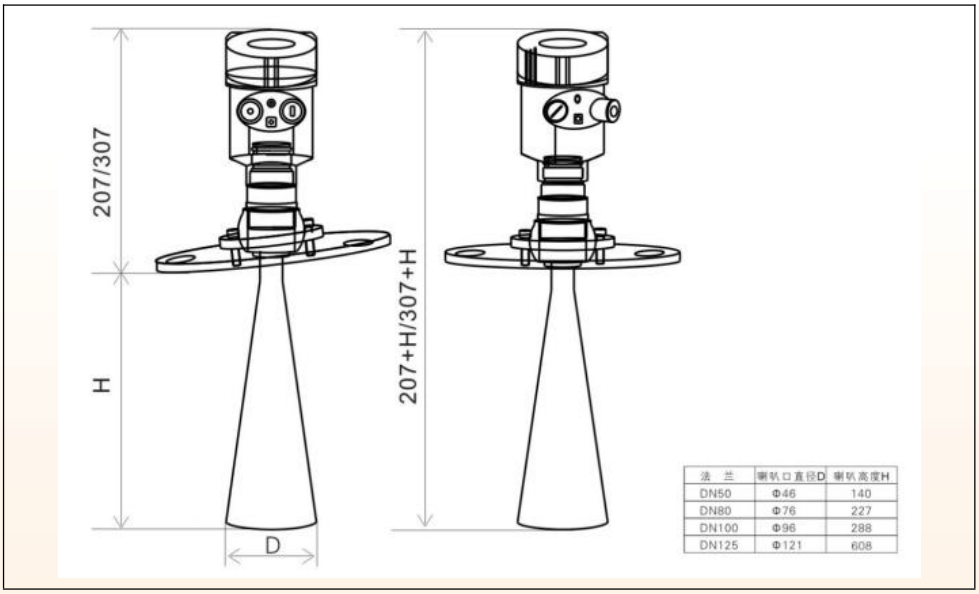
DCRD1000A2 Model Selection			
Element	Code	Parameter	Note
Anti-explosion	P	Standard (non-Ex)	
	I	Intrinsic safety (Exia II CT6 Ga)	
	D	Intrinsic safety+Exd (Exd ia II CT6 Gb)	
Process connection / Material	G	Screw thread G1½A / stainless steel 304	
	N	Screw thread 1½NPT / stainless steel 304	
	A	Flange DN50 / stainless steel 304	
	B	Flange DN80 / stainless steel 304	
	C	Flange DN100 / stainless steel 304	
	Y	Special custom	
Antenna Type / Material	B	Horn antennaΦ46mm / stainless steel 316L	
	C	Horn antennaΦ76mm / stainless steel 316L	
	D	Horn antennaΦ96mm / stainless steel 316L	
	F	Horn antennaΦ76mm / stainless steel 316L / Extension tube	
	H	Horn antennaΦ96mm / stainless steel 316L / Extension tube	
	Y	Special custom	
Seal/process temperature	V	Viton / (- 40 ~ 150) °C	
	K	Kalrez / (- 40 ~ 250) °C	
Electronic unit	2	(4 ~ 20) mA / 24V DC / HART two-wire system	
	3	(4 ~ 20) mA / 24V DC / HART four-wire system	
	4	(4 ~ 20) mA / (85~ 265) V AC / HART four-wire system	
	5	RS485/Modbus/(6~26)V DC	
Housing/Protection grade	L	Aluminum / IP67	
	G	Aluminum / IP67 Double chamber	
Cable entry	M	M20xl. 5	
	N	½ NPT	
Live display/ programming	A	With	
	X	Without	
Special custom	Y	Special custom	

DCRD1000A3 Radar Level Transmitter

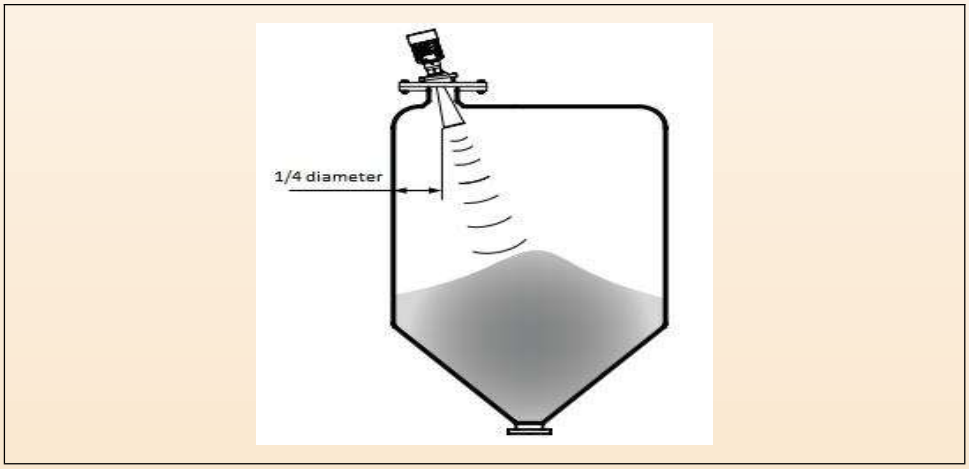
1. DCRD1000A3 Technical Parameter

Application	Solid materials, strong dust and crystallization, condensation occasion
Measuring range	70 meter
Process connection	Screw thread, Flange
Medium Temperature	-40~250°C
Process pressure	Atmospheric
Accuracy	±15mm
Frequency range	26GHz
Anti-explosion/safety grade	Exia II CT6 Ga, Exd ia II CT6 Gb / IP67
Signal output	4~20mA/HART(Two-wire/Four-wire) RS485/Modbus

2. DCRD1000A3 Outer Dimension



3. DCRD1000A3 Installation



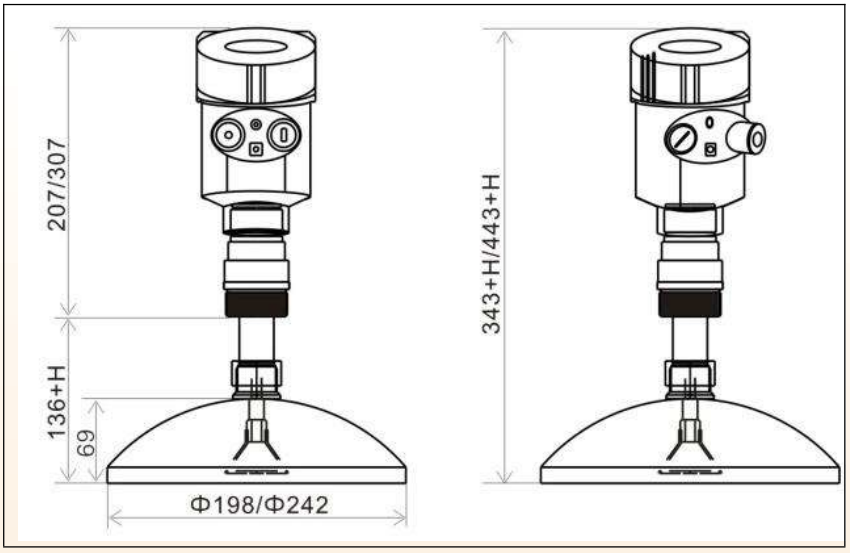
DCRD1000A3 Model Selection			
Element	Code	Parameter	Note
Anti-explosion	P	Standard (non-Ex)	
	I	Intrinsic safety (ExiaIICT6 Ga)	
	D	Intrinsic safety+Exd (Exd ia II CT6 Gb)	
Process connection / Material	B	Flange DN80 / stainless steel 304	
	C	Flange DN100 / stainless steel 304	
	D	Flange DN125 / stainless steel 304	
	E	Flange DN150 / stainless steel 304	
	F	Flange DN200 / stainless steel 304	
	H	Flange DN250 / stainless steel 304	
	M	Flange DN80 / universal joint (stainless steel) 304	
	K	Flange DN100 / universal joint (stainless steel) 304	
	T	Flange DN125 / universal joint (stainless steel) 304	
	Z	Flange DN150 / universal joint (stainless steel) 304	
	W	Flange DN200 / universal joint (stainless steel) 304	
	V	Flange DN250 / universal joint (stainless steel) 304	
Antenna Type/ Material	C	Horn antennaΦ76mm / stainless steel 316L	
	D	Horn antennaΦ96mm / stainless steel 316L	
	E	Horn antennaΦ121mm / stainless steel 316L	
	K	Horn antennaΦ76mm / stainless steel 316L/ blow-sweep equipment	
	T	Horn antennaΦ96mm / stainless steel 316L/blow-sweep equipment	
	Z	Horn antennaΦ121mm / stainless steel 316L/blow-sweep equipment	
Seal/Process temperature	V	Viton / (- 40 ~ 150) °C	
	K	Kalrez / (- 40 ~ 250) °C	
Electronic unit	2	(4 ~ 20) mA / 24V DC / HART two-wire system	
	3	(4 ~ 20) mA / 24V DC / HART four-wire system	
	4	(4 ~ 20) mA / (85~ 265) V AC / HART four-wire system	
	5	RS485/Modbus/(6~26)V DC	
Housing/Protection grade	L	Aluminum / IP67	
	G	Aluminum / IP67 Double chamber	
Cable entry	M	M20*l. 5	
	N	½ NPT	
Live display/ Programming	A	With	
	X	Without	
Special custom	Y	Special custom	

DCRD1000A4 Radar Level Transmitter

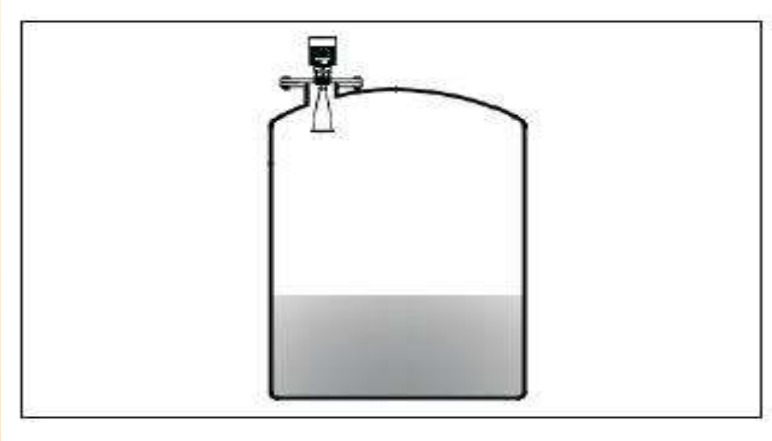
1. DCRD1000A4 Technical Parameter

Application	Long range storage container, process container, or hanging bulk material and crystallization, condensation occasion
Measuring range	70 meter
Process connection	Screw thread, Flange
Medium Temperature	-40～250°C
Process pressure	Atmospheric
Accuracy	±15mm
Frequency range	26GHz
Anti-explosion/safety grade	Exia II CT6 Ga, Exd ia II CT6 Gb / IP67
Signal output	4~20mA/HART(Two-wire/Four-wire) RS485/Modbus

2. DCRD1000A4 Outer Dimension



3. DCRD1000A4 Installation



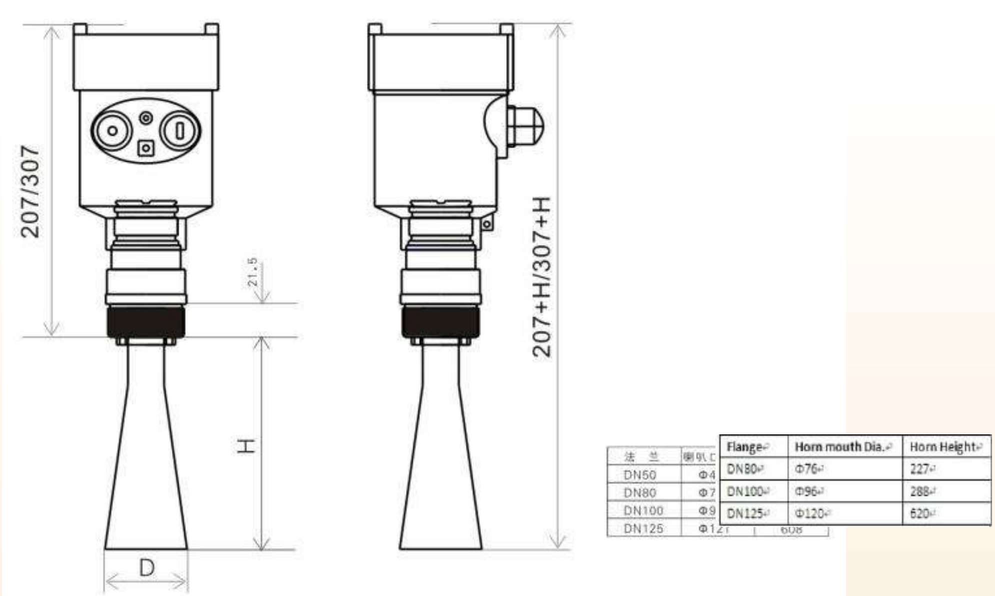
DCRD1000A4 Model Selection			
Element	Code	Parameter	Note
Anti-explosion	P	Standard (non-Ex)	
	I	Intrinsic safety (ExiaIICT6 Ga)	
	D	Intrinsic safety+Exd (Exd ia II CT6 Gb)	
Process connection/ Material	G	Screw thread G1½A / stainless steel 304	
	N	Screw thread 1½NPT / stainless steel 304	
	F	Flange DN200 / stainless steel 304	
	H	Flange DN250 / stainless steel 304	
	W	Flange DN200 / universal joint (stainless steel) 304	
	V	Flange DN250 / universal joint (stainless steel) 304	
	Y	Special custom	
Antenna Type/ Material	B	Parabolic antennaΦ198mm / stainless steel 304	
	C	Parabolic antennaΦ242mm / stainless steel 304	
	D	Parabolic antennaΦ198mm / stainless steel 304(extension tube 100mm)	
	E	Parabolic antennaΦ242mm / stainless steel 304(extension tube 100mm)	
	F	Parabolic antennaΦ198mm / stainless steel 304(extension tube 200mm)	
	H	Parabolic antennaΦ242mm / stainless steel 304(extension tube 200mm)	
	M	Parabolic antennaΦ198mm / stainless steel 304(extension tube 300mm)	
	K	Parabolic antennaΦ242mm / stainless steel 304(extension tube 300mm)	
Seal/Process temperature	V	Viton / (- 40 ~ 150) °C	
	K	Kalrez / (- 40 ~ 250) °C	
Electronic unit	2	(4 ~ 20) mA / 24V DC / HART two-wire system	
	3	(4 ~ 20) mA / 24V DC / HART four-wire system	
	4	(4 ~ 20) mA / (85~ 265) V AC / HART four-wire system	
	5	RS485/Modbus/(6~26)V DC	
Housing/Protection grade	L	Aluminum / IP67	
	G	Aluminum / IP67 Double chamber	
Cable entry	M	M20*l. 5	
	N	½ NPT	
Live display/ Programming	A	With	
	X	Without	
Special custom	Y	Special custom	

DCRD1000A5 Radar Level Transmitter

1. DCRD1000A5 Technical Parameter

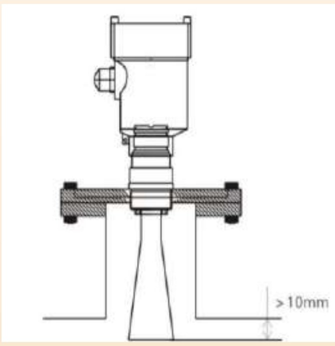
Application	Solid particles, dust, reservoir, river, water level monitoring
Measuring range	30 meter
Process connection	Screw thread, Flange
Medium Temperature	-40～250°C
Process pressure	Atmospheric
Accuracy	± 10mm
Frequency range	26GHz
Anti-explosion/safety grade	Exia II CT6 Ga/Exd ia II CT6 Gb / IP67
Signal output	4~20mA/HART(Two-wire/Four-wire) RS485/Modbus

2. DCRD1000A5 Outer Dimension



Flange	Horn mouth Dia.	Horn Height
DN80	Φ76	227
DN100	Φ96	288
DN125	Φ120	620

3. DCRD1000A5 Installation



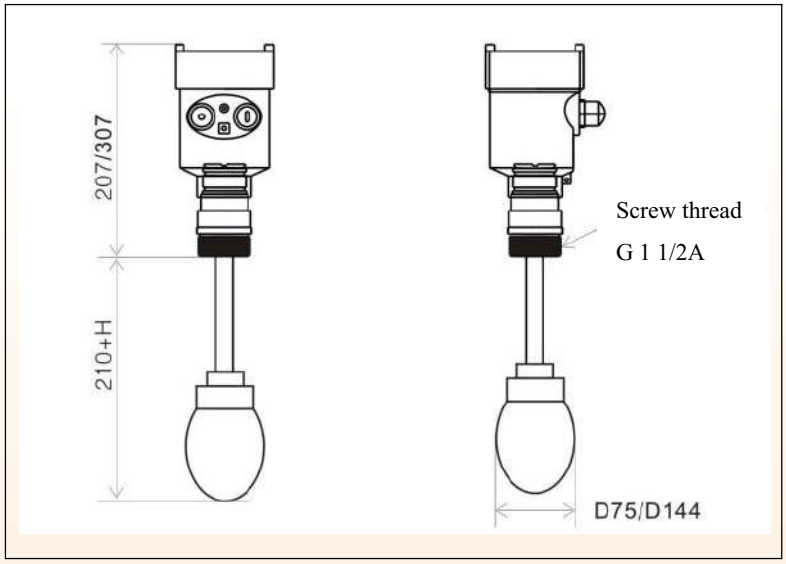
DCRD1000A5 Model Selection			
Element	Code	Parameter	Note
Anti-explosion	P	Standard (non-Ex)	
	I	Intrinsic safety (ExiaIICT6 Ga)	
	D	Intrinsic safety+Exd (Exd ia II CT6 Gb)	
Process connection/Material	G	Screw thread G1½A / stainless steel 304	
	N	Screw thread 1½NPT / stainless steel 304	
	B	Flange DN80 / stainless steel 304	
	C	Flange DN100 / stainless steel 304	
	D	Flange DN125 / stainless steel 304	
	E	Flange DN150 / stainless steel 304	
	F	Flange DN200 / stainless steel 304	
	H	Flange DN250 / stainless steel 304	
	M	Flange DN80 / universal joint (stainless steel) 304	
	K	Flange DN100 / universal joint (stainless steel) 304	
	T	Flange DN125 / universal joint (stainless steel) 304	
	Z	Flange DN150 / universal joint (stainless steel) 304	
	W	Flange DN200 / universal joint (stainless steel) 304	
	V	Flange DN250 / universal joint (stainless steel) 304	
	Y	Special custom	
Antenna Type/ Material	C	Horn antennaΦ76mm / stainless steel 316L	
	D	Horn antennaΦ96mm / stainless steel 316L	
	E	Horn antennaΦ121mm / stainless steel 316L	
Seal/Process temperature	V	Viton / (- 40 ~ 150) °C	
	K	Kalrez / (- 40 ~ 250) °C	
Electronic unit	2	(4 ~ 20) mA / 24V DC / HART two-wire system	
	3	(4 ~ 20) mA / 24V DC / HART four-wire system	
	4	(4 ~ 20) mA / (85~ 265) V AC / HART four-wire system	
	5	RS485/Modbus/(6~26)V DC	
Housing/Protection grade	L	Aluminum / IP67	
	G	Aluminum / IP67 Double chamber	
Cable entry	M	M20*l. 5	
	N	½ NPT	
Live display/ Programming	A	With	
	X	Without	
Special custom	Y	Special custom	

DCRD1000A6 Radar Level Transmitter

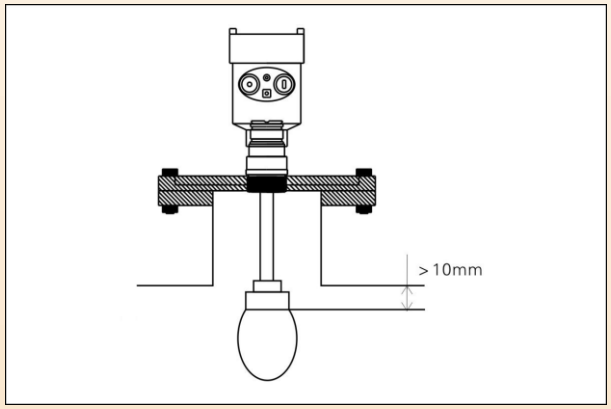
1. DCRD1000A6 Technical Parameter

Application	Liquid, slurry, condensation, corrosive liquids.
Measuring range	20 meter
Process connection	Screw thread, Flange
Medium Temperature	-40～150°C
Process pressure	Atmospheric
Accuracy	± 3mm
Frequency range	26GHz
Anti-explosion/safety grade	Exia II CT6 Ga/Exd ia II CT6 Gb / IP67
Signal output	4~20mA/HART(Two-wire/Four-wire) RS485/Modbus

2. DCRD1000A6 Outer Dimension



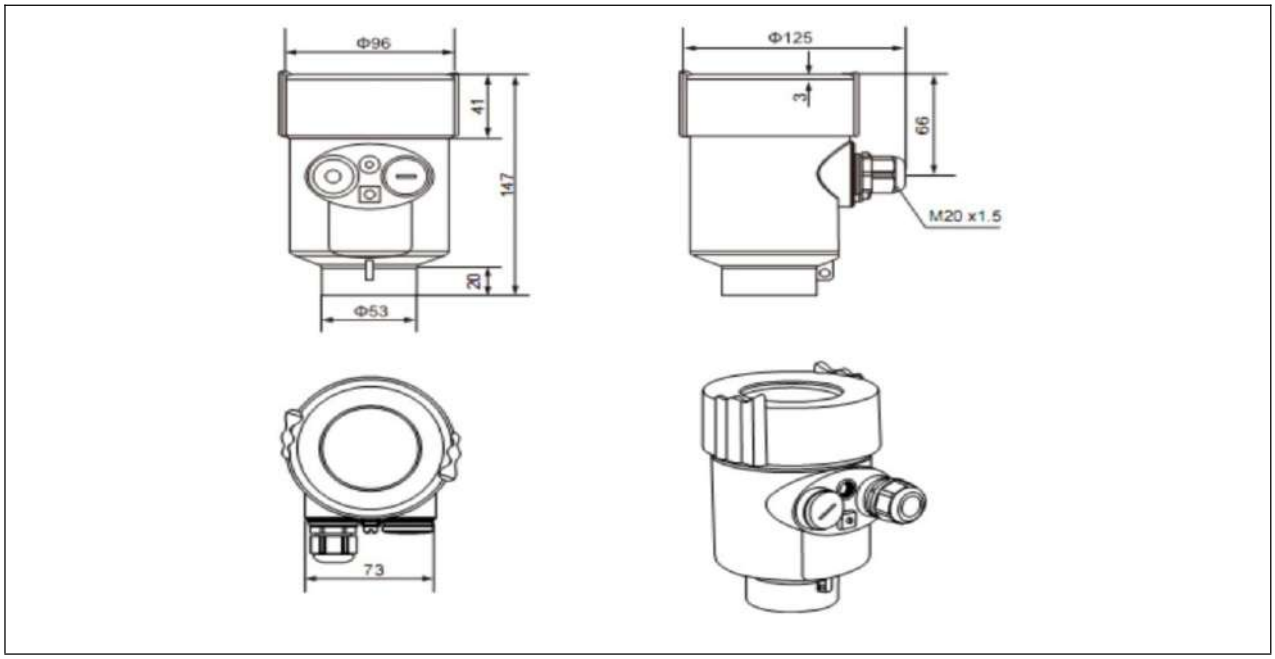
3. DCRD1000A6 Installation



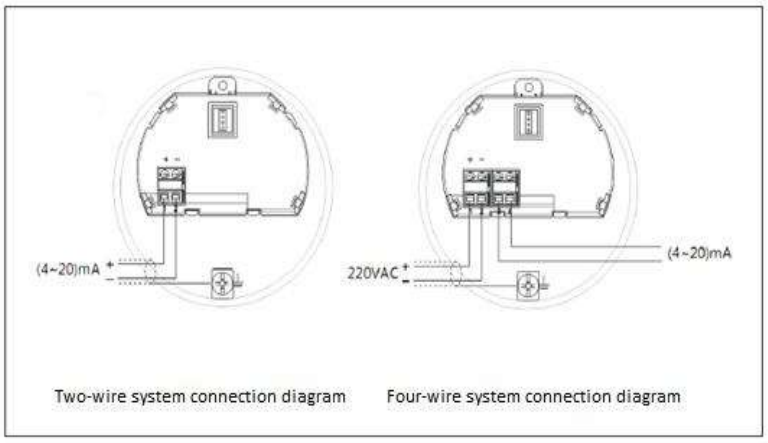
DCRD1000A6 Model Selection			
Element	Code	Parameter	
Anti-explosion	P	Standard (non-Ex)	
	I	Intrinsic safety (ExiaIICT6 Ga)	
	D	Intrinsic safety+Exd (Exd ia II CT6 Gb)	
Process connection / Material	B	Flange DN80/ stainless steel 304	
	C	Flange DN100/stainless steel 304	
	D	Flange DN125/stainless steel 304	
	E	Flange DN150/stainless steel 304	
	M	Flange DN80/universal joint/stainless steel 304	
	K	Flange DN100/universal joint/stainless steel 304	
	T	Flange DN125/universal joint/stainless steel 304	
	Z	Flange DN150/universal joint/stainless steel 304	
Antenna Type/ Material	B	Water droplets antenna Φ76mm/SS 316L	
	C	Water droplets antenna Φ144mm/SS 316L	
	D	Water droplets antenna Φ76mm/SS 316L(extension tube 100mm)	
	E	Water droplets antenna Φ144mm/SS 316L(extension tube 100mm)	
Seal/Process temperature	V	Viton / (- 40 ~ 150) °C	
	K	Kalrez / (- 40 ~ 250) °C	
Electronic unit	2	(4 ~ 20) mA / 24V DC / HART two-wire system	
	3	(4 ~ 20) mA / 24V DC / HART four-wire system	
	4	(4 ~ 20) mA / (85~ 265) V AC / HART four-wire system	
	5	RS485/Modbus/(6~26)V DC	
Housing/Protection grade	L	Aluminum / IP67	
	G	Aluminum / IP67 Double chamber	
Cable entry	M	M20*l. 5	
	N	½ NPT	
Live display/ Programming	A	With	
	X	Without	
Special custom	Y	Special custom	

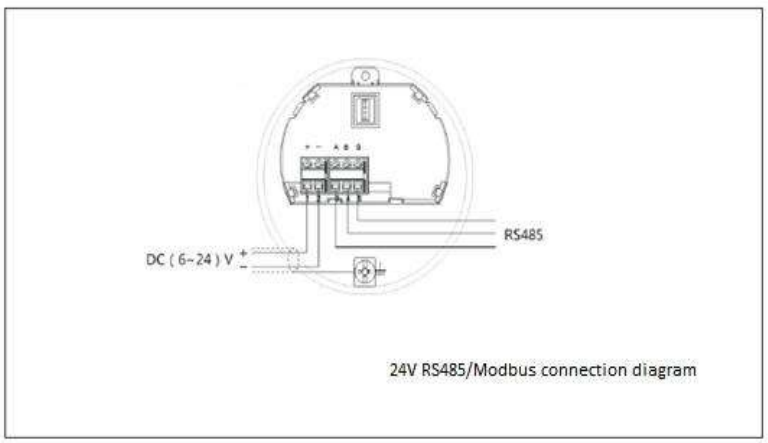
Dimension Sheet of DCRD1000A Series

1. DCRD1000A Series housing dimension



2. DCRD1000A series connection diagram





6.8GHz Intelligent Radar Level Transmitter

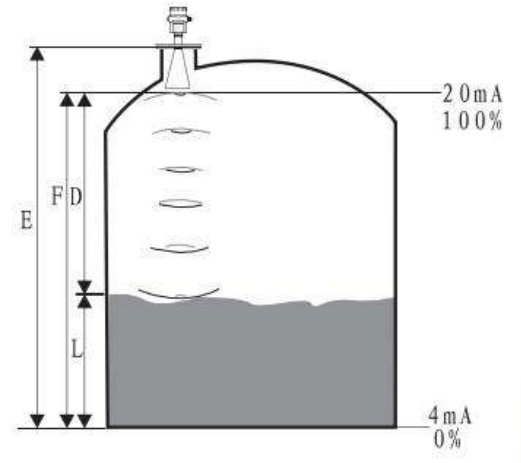
Introduction

DCRD1000B series level transmitter is the advanced radar level measurement instruments, with maximum measuring distance 35m for level measurement of storage tanks, process vessels or intermediate buffer tank, and output 4 ... 20mA analog signal.

Measuring principle

High-frequency microwave pulse transmitting and receiving by the antenna system, the radar wave travel in speed of light, the running time can be converted into level signal by the electronics component. A special time extension method can guarantee stable and accurate measurement in very short time.

Even under more complex conditions with the false echoes, by the latest micro-processing technology and debugging software, it can accurately identify the echo of material.



Input

The antenna receives the reflected microwave pulses and transmits it to the electronic circuits, the microprocessors process this signal, and identify the echo that generate by the micro pulse on the material surface. The correct echo signal completed by the intelligent software, the precision can reach millimeter. The distance D that from the material surface is proportional to the pulse travel time T: D = C × T / 2 (where C is the speed of light) Because the empty tank distance E is known, the level L is: L=E-D

Output

By entering the empty height E (= zero), full tank height F (= full scale) and some applications parameters for setting, application parameters will automatically adapt the instrument to fit the measuring environment. Corresponds to 4-20mA output.

Product Features

●Adopt advanced non-contact measurement ●Apply extremely stable manufacturing materials

●Level measurement of liquid, solid medium

●Measure all media that the dielectric constant is larger than 1.8

●Measuring range 0 ... 30m (can be extended to 35 meters)

●Adopt the two-wire, loop-powered technology that the supply voltage and output signals transmitted via a two-core cable

●4 ... 20mA output or digital signal output ●Resolution 1mm

●Not affected by noise, steam, dust, vacuum and other working conditions

●Not affected by fluid density, viscosity and temperature changes

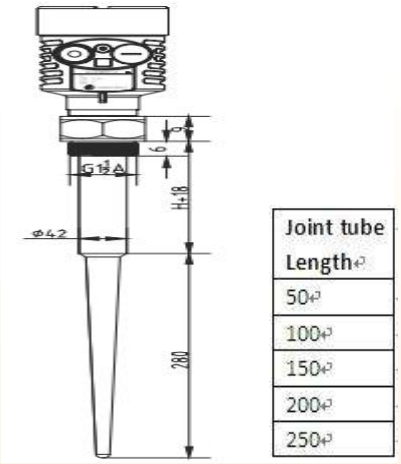
●Process pressure up to 4MPa ●Process temperatures up to 250 ℃

DCRD1000B1 Radar Level Transmitter

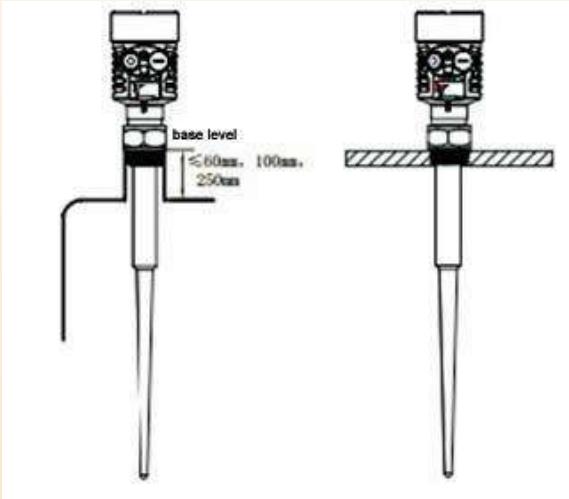
1. DCRD1000 B1 Technical Parameter

Application	Simple process conditions, corrosive liquids, slurries and such as: waste water tanks, acid tanks, slurry tanks, solid particles, small oil storage tanks
Measuring range	20 meter
Process connection	Screw thread, Flange(optional)
Medium Temperature	-40-120°C
Process pressure	-0.1-0.3Mpa
Accuracy	± 10mm
Frequency range	6.8GHz
Anti-explosion/safety grade	Exia IIC T6 Ga/IP67
Signal output	4~20mA/HART(Two-wire/ Four) RS485/Mod bus

2. DCRD1000B1 Outer Dimension



3. DCRD1000B1 Installation

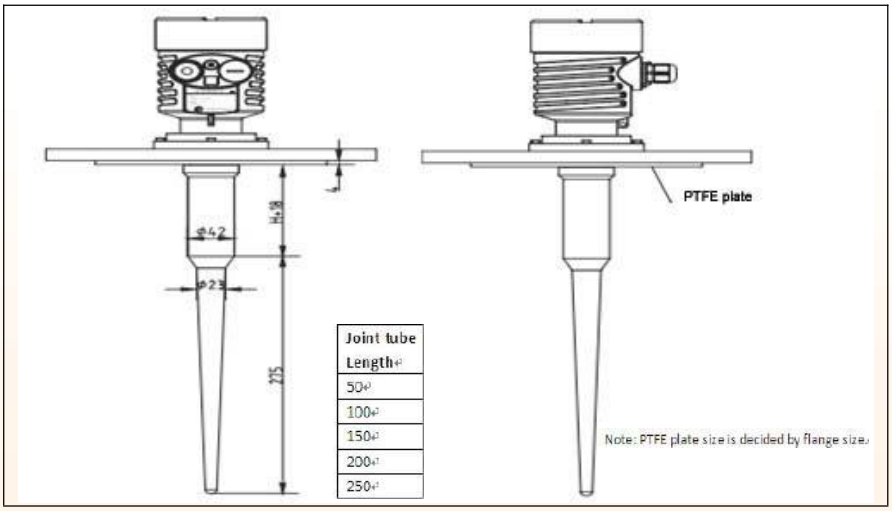


DCRD1000B2 Radar Level Transmitter

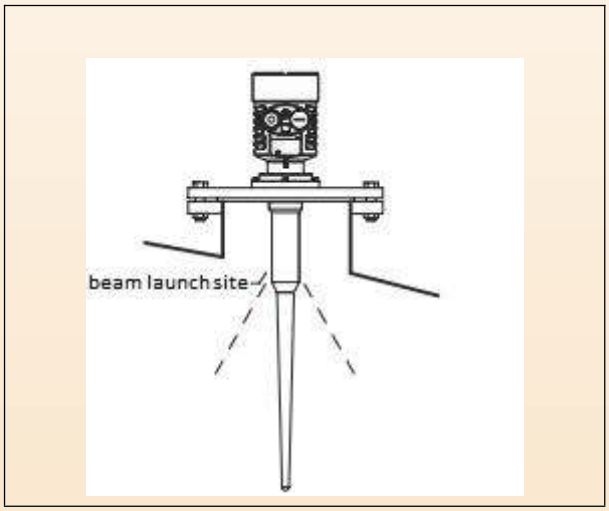
1. DCRD1000B2 Technical Parameter

Application	Storage corrosive material or process container liquids
Measuring range	20 meter
Process connection	Flange
Medium Temperature	-40-150°C
Process pressure	-0.1-1.6Mpa
Accuracy	± 10mm
Frequency range	6.8GHz
Anti-explosion/safety grade	Exia IIC T6 Ga/IP67
Signal output	4~20mA/HART(Two-wire/ Four) RS485/Mod bus

2. DCRD1000B2 Outer Dimension



3. DCRD1000B2 Installation

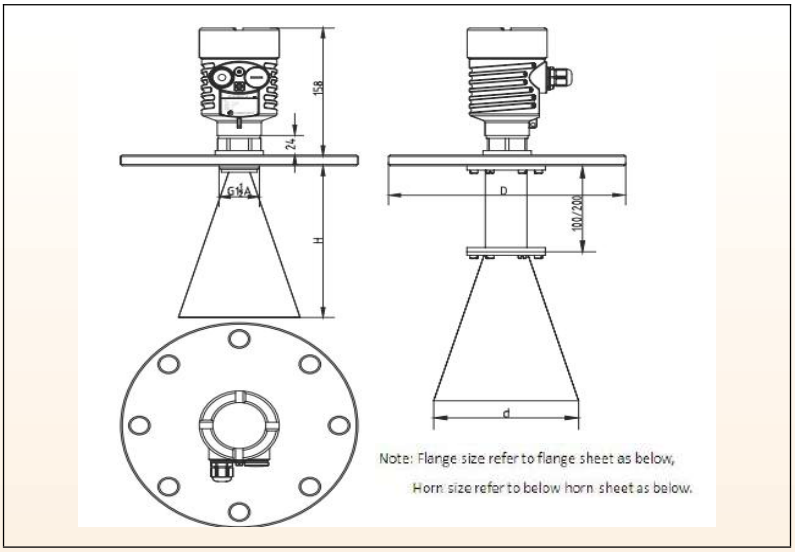


DCRD1000B3 Radar Level Transmitter

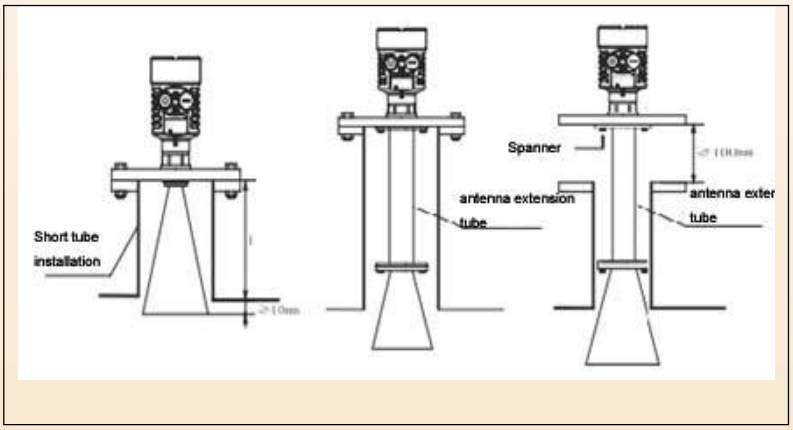
1、DCRD1000B3 Technical Parameter

Application	All kinds of storage container or process container,liquids, solids, such as: crude oil, raw coal,volatile liquid storage tanks
Measuring range	35meter
Process connection/fitting	Flange
Process Temperature	-40-250°C
Process pressure	-0.1-2Mpa
Accuracy	± 10mm
Frequency band	6.8GHz
Anti-explosion/safety grade	Exia IIC T6 Ga/IP67
Signal output	4~20mA/HART(Two-wire/ Four) RS485/Mod bus

2. DCRD1000B3 Outer Dimension



3. DCRD1000B3 Installation

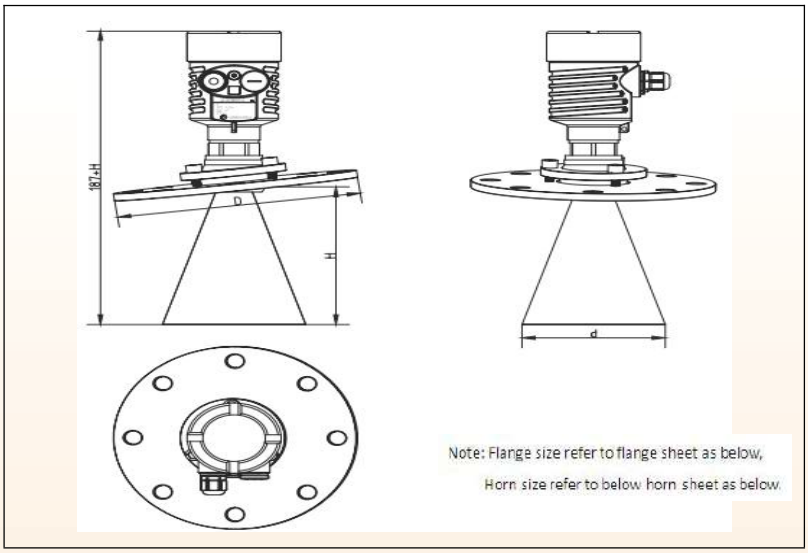


DCRD1000B4 Radar Level Transmitter

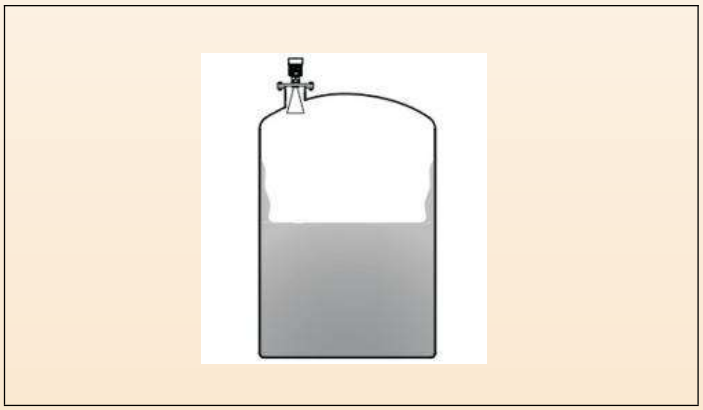
1. DCRD1000B4 Technical Parameter

Application	Powder material, solid particles, measurement of the agglomerate, such as raw coal bunker, powder coal bunker, coke material level, etc.
Measuring range	35 meter
Process connection	Universal Flange
Medium Temperature	-40-250°C
Process pressure	Atmospheric
Accuracy	± 15mm
Frequency range	6.8GHz
Anti-explosion/safety grade	Exia IIC T6 Ga/IP67
Signal output	4~20mA/HART(Two-wire/ Four) RS485/Mod bus

2. DCRD1000B4 Outer Dimension



3. DCRD1000B4 Installation

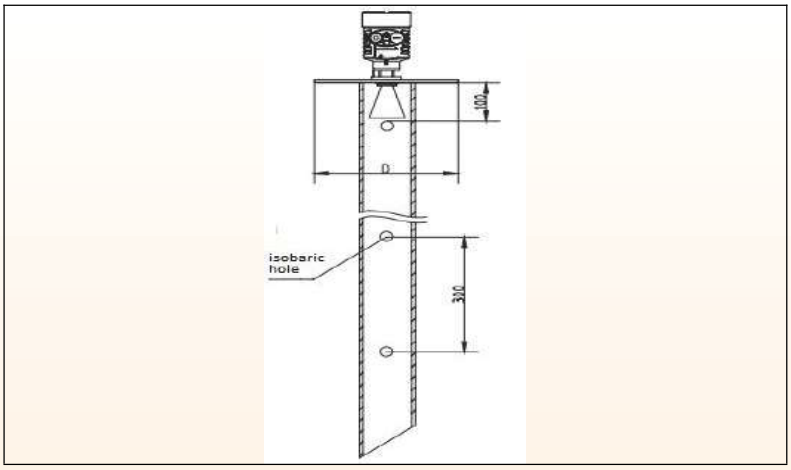


DCRD1000B5 Radar Level Transmitter

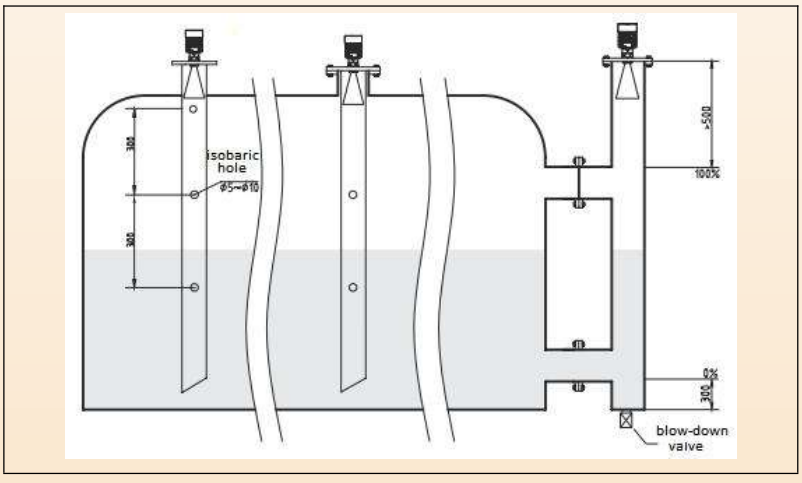
1. DCRD1000B5 Technical Parameter

Application	low dielectric constant liquids and liquid storage tanks with agitators
Measuring range	20 meter
Process connection	Flange
Medium Temperature	-40-250°C
Process pressure	-1.0-2MPa
Accuracy	± 10mm
Frequency range	6.8GHz
Anti-explosion/safety grade	Exia IIC T6 Ga/IP67
Signal output	4~20mA/HART(Two-wire/ Four) RS485/Mod bus

2. DCRD1000B5 Outer Dimension



3. DCRD1000B5 Installation

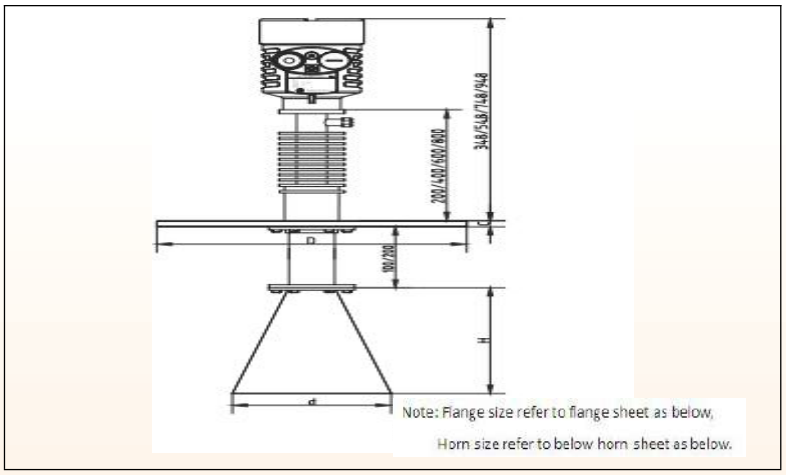


DCRD1000B6 Radar Level Transmitter

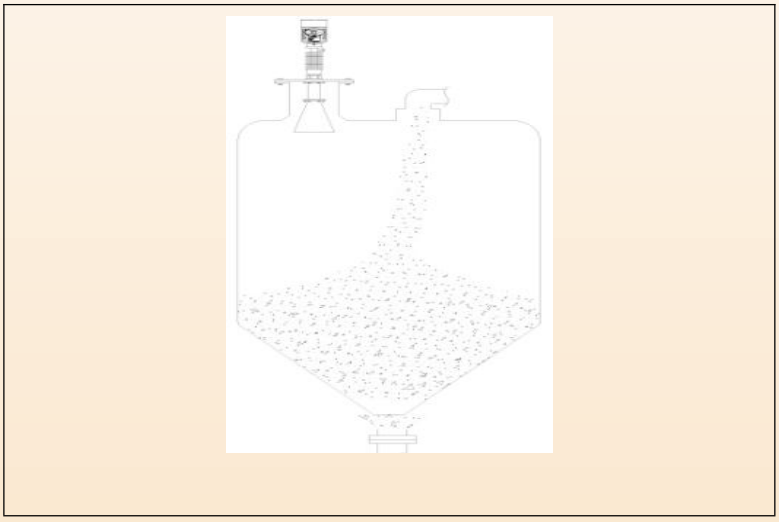
1. DCRD1000B6 Technical Parameter

Application	Blast furnace, thicker tank and conditions that install short tube on higher position
Measuring range	30meter
Process connection	Flange
Medium Temperature	-40-500°C
Process pressure	Atmospheric
Accuracy	± 15mm
Frequency range	6.8GHz
Anti-explosion/safety grade	Exia IIC T6 Ga/IP67
Signal output	4~20mA/HART(Two-wire/ Four) RS485/Mod bus

2. DCRD1000B6 Outer Dimension



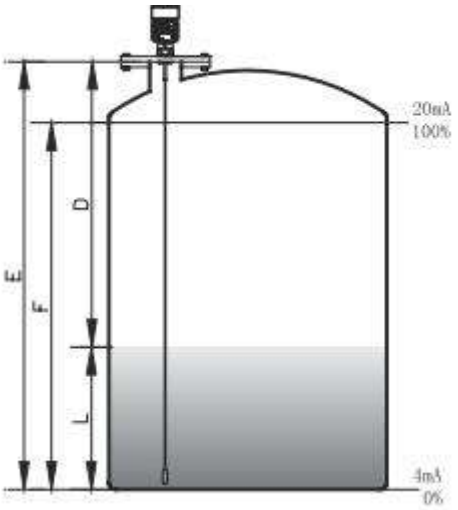
3. DCRD1000B6 Installation



Guided Wave Series Radar Level Transmitter

Measuring principle

Guided Wave Radar is the measuring instruments that based on the time travel principle, the radar wave travel in speed of light, run time can be converted into a level signal by the electronic component. The probe emit the high-frequency pulse and spread along the cable probe, the pulse come across the material surface and reflect back then receive by the instrument receiver and converted the distance signal to level signal.



Input

Reflected pulse signal conduction transmit along the cable to the electronic circuit part of the instrument, the microprocessor processes this signal, identify the echo that generated by the microwave pulses on the material surface. Correct echo signal recognition accomplish by the intelligent software, the distance D that from the material surface is proportional to the pulse time travel T: D=C×T/2 (C represent for speed of light)

As the empty tank distance E is already known, the level L is: L = E-D.

Output

By entering the empty tank height E (= zero), full tank height F (= full scale) and some applications parameters to set up, application parameters will automatically adapt the measurement environment. Corresponds to 4-20mA output.

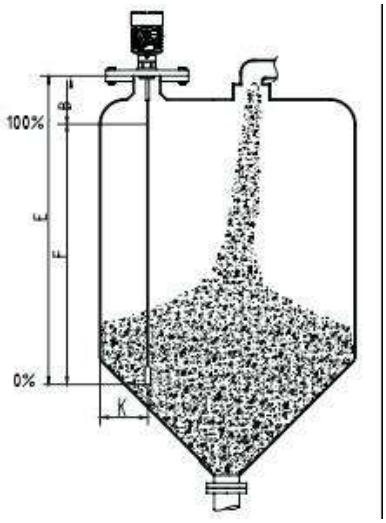
Measuring range

F----Measuring range

E----Empty tank distance

B--- Top blind zone

L---- Mini. Distance from probe to tank wall



The top blind zone is the minimum distance between the highest material surface and the measurement reference point.

The bottom blind zone refers to the distance that near the mooring rope bottom and cannot be accurate measured.

The distance between the top and the bottom blind zone is the effective measurement distance.

Note：

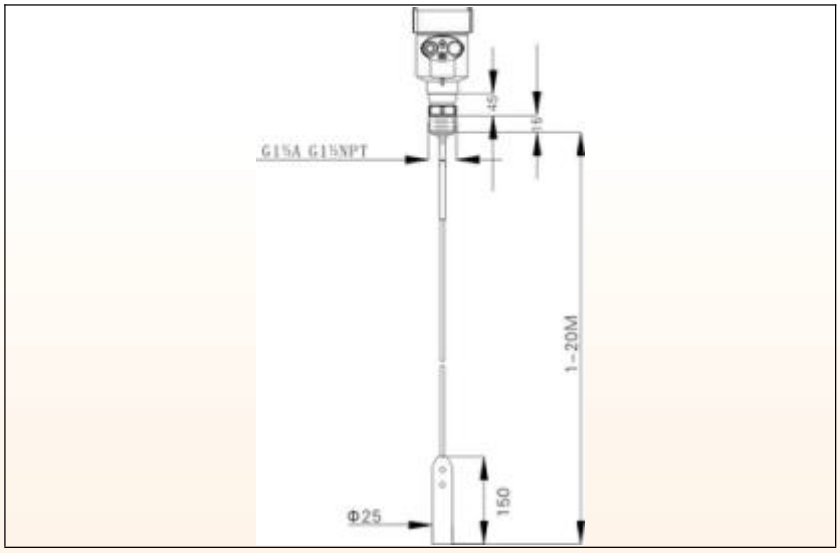
The tank level can be measured reliably only when the material is between the blind zone of top and bottom.

DCRD1000C1 Radar Level Transmitter

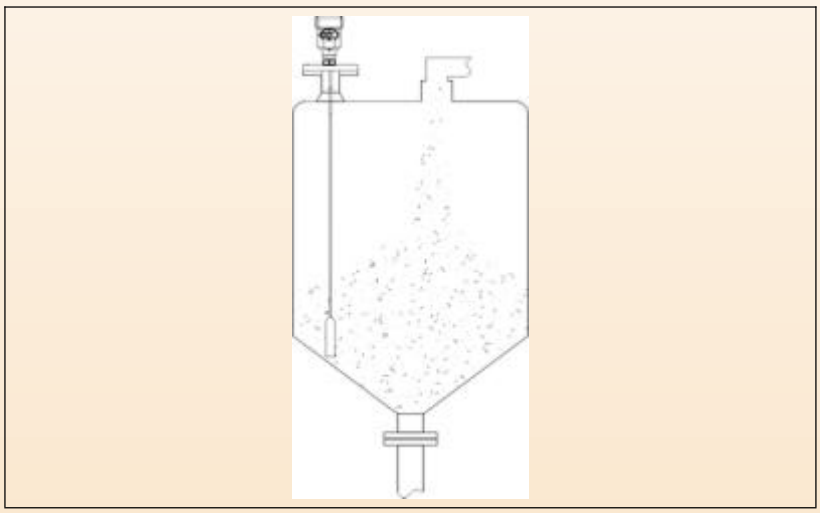
1. DCRD1000C1 Technical Parameter

Application	Liquid, solid particles with high dielectric constant
Measuring range	20meter
Process connection	Screw thread, Flange
Medium Temperature	-40~250°C
Process pressure	-0.1~2MPa
Accuracy	± 3mm
Frequency range	100MHZ-1.8GHZ
Anti-explosion/safety grade	Exia II CT6 Ga/Exd ia II CT6 Gb / IP67
Signal output	4~20mA/HART(Two-wire/Four-wire)

2. DCRD1000C1 Outer Dimension



3. DCRD1000C1 Installation



DCRD1000C1 Model Selection

Model：DCRD1000C1　Probe type：cable type probe　Meter full scale：20000mm　Material：stainless steel

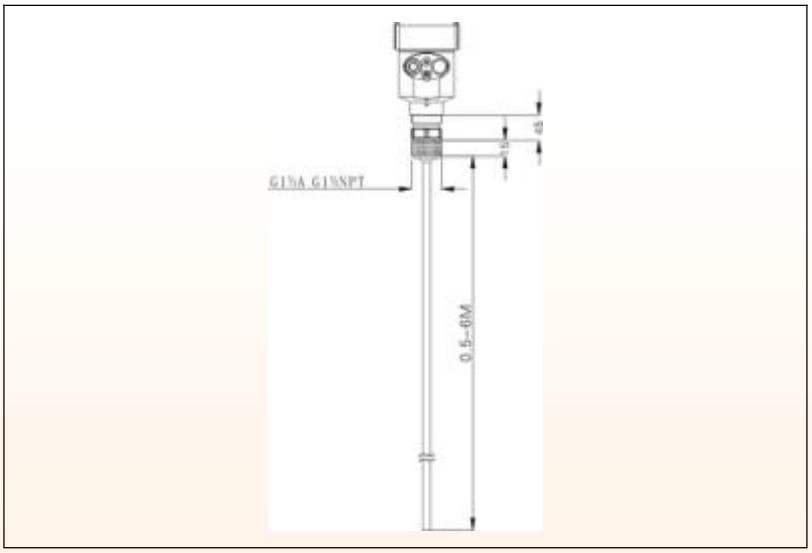
Element	Code	Parameter	Note
Anti-explosion	P	Standard (non-Ex)	
	I	Intrinsic safety (ExiaIICT6 Ga)	
	D	Intrinsic safety+Exd (Exd ia II CT6 Gb)	
Sensor/Cable type probe	A	Liquid type/4mm	
	B	Solid type/6mm	
Process connection/Material	G	Screw thread G1½A　stainless steel	
	GA	Screw thread G½A　stainless steel	
	N	Screw thread 1½NPT　stainless steel	
	NA	Screw thread ½NPT　stainless steel	
	A	Flange DN50　PN16C　stainless steel	
	B	Flange DN80　PN16C　stainless steel	
	C	Flange DN100　PN16C　stainless steel	
	D	Flange DN150　PN16C　stainless steel	
	E	Flange DN200　PN16C　stainless steel	
	H	Flange DN250　PN16C　stainless steel	
	Y	Special custom	
Seal/Process temperature	P	Common seal/-40...120°C	
	G	High-temperature seal/-40...250°C with radiator	
Electronic unit	2	(4 ~ 20) mA / 24V DC / two-wire system	
	3	(4 ~ 20) mA / 24V DC / HART two-wire system	
	4	(4 ~ 20) mA / 24V DC / HART four-wire system	
	5	(4 ~ 20) mA / (85~ 265) V AC / DC / HART four-wire system	
Housing/Protection grade	L	Aluminum / IP67	
	G	Aluminum / IP67 Double chamber	
Cable entry	M	M20*l. 5	
	N	½ NPT	
Live display/ Programming	A	With	
	X	Without	
Special custom	Y	Special custom	

DCRD1000C2 Radar Level Transmitter

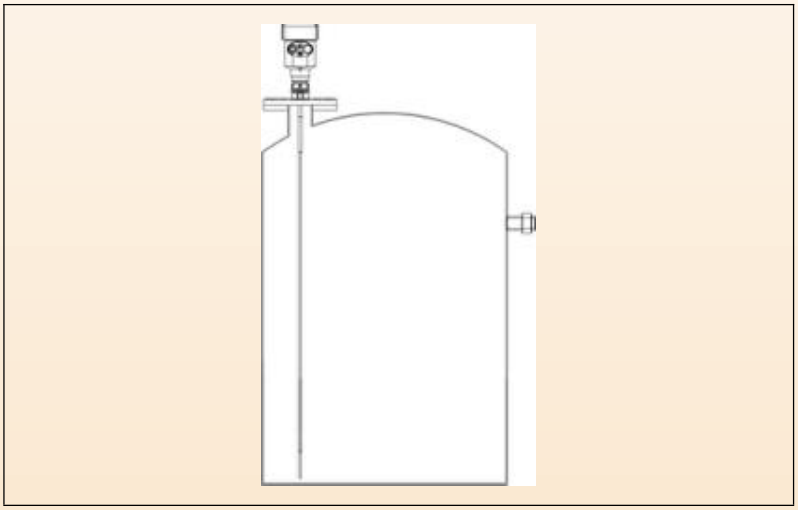
1. DCRD1000C2 Technical parameter

Application	Liquid
Measuring range	6 meter
Process connection	Screw thread, Flange
Medium Temperature	-40~250°C
Process pressure	-0.1~2MPa
Accuracy	±3mm
Frequency range	100MHZ-1.8GHZ
Anti-explosion/safety grade	Exia II CT6 Ga/Exd ia II CT6 Gb / IP67
Signal output	4~20mA/HART(Two-wire/Four-wire)

2. DCRD1000C2 Outer Dimension



3. DCRD1000C2 Installation



DCRD1000C2 Model Selection

Model：DCRD1000C2 Probe type：bar type probe Meter full scale：6000mm Material：stainless steel

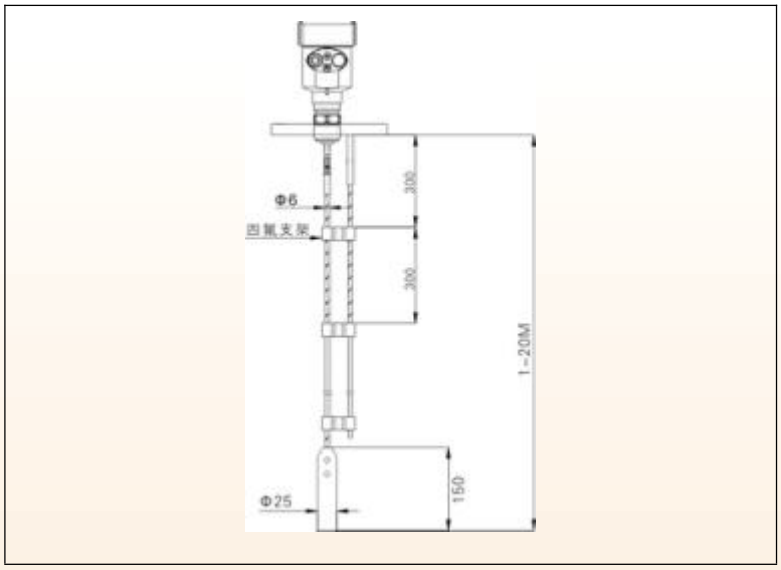
Element	Code	Parameter	Note
Anti-explosion	P	Standard (non-Ex)	
	I	Intrinsic safety (ExiaIICT6 Ga)	
	D	Intrinsic safety+Exd (Exd ia II CT6 Gb)	
Sensor/Rod type probe	A	6mm	
	B	10mm	
Process connection/Material	G	Screw thread G1½A stainless steel	
	GA	Screw thread G½A stainless steel	
	N	Screw thread 1½NPT stainless steel	
	NA	Screw thread ½ NPT stainless steel	
	A	Flange DN50 PN16C stainless steel	
	B	Flange DN80 PN16C stainless steel	
	C	Flange DN100 PN16C stainless steel	
	D	Flange DN150 PN16C stainless steel	
	E	Flange DN200 PN16C stainless steel	
	H	Flange DN250 PN16C stainless steel	
	Y	Special custom	
Seal/Process temperature	P	Common seal/-40...100°C	
	G	High-temperature seal/-40...150°C with radiator	
Electronic unit	2	(4 ~ 20) mA / 24V DC / two-wire system	
	3	(4 ~ 20) mA / 24V DC / HART two-wire system	
	4	(4 ~ 20) mA / 24V DC / HART four-wire system	
	5	(4 ~ 20) mA / (85~ 265) V AC / DC / HART four-wire system	
Housing/Protection grade	L	Aluminum / IP67	
	G	Aluminum / IP67 Double chamber	
Cable entry	M	M20*l. 5	
	N	½ NPT	
Live display/ Programming	A	With	
	X	Without	
Special custom	Y	Special custom	

DCRD1000C3 Radar Level Transmitter

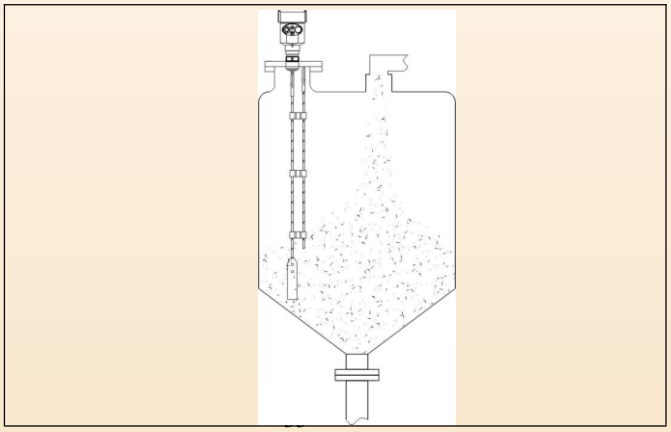
1. DCRD1000C3 Technical parameter

Application	Solid powder, solid particles
Measuring range	20meter
Process connection	Screw, Flange
Medium Temperature	-40~250°C
Process pressure	-0.1~2MPa
Accuracy	±3mm
Frequency range	100MHZ-1.8GHZ
Anti-explosion/safety grade	Exia II CT6 Ga/Exd ia II CT6 Gb / IP67
Signal output	4~20mA/HART(Two-wire/Four-wire)

2. DCRD1000C3 Outer Demension



3. DCRD1000C3 Installation



DCRD1000C3 Model Selection

Model：DCRD1000C3　Probe type：double cable type probe Meter full scale：20000mm　Material：stainless steel（flange installation）

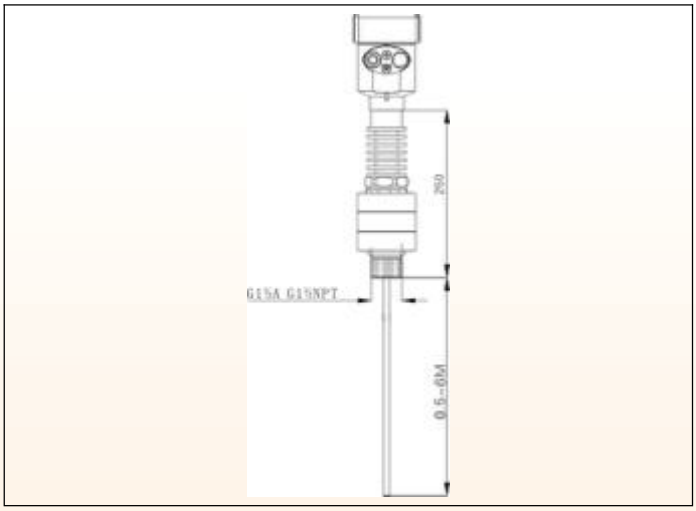
Element	Code	Parameter	Note
Anti-explosion	P	Standard (non-Ex)	
	I	Intrinsic safety (ExiaIICT6 Ga)	
	D	Intrinsic safety+Exd (Exd ia II CT6 Gb)	
Process connection/Material	B	Flange DN80　PN16C　stainless steel	
	C	Flange DN100　PN16C　stainless steel	
	D	Flange DN150　PN16C　stainless steel	
	E	Flange DN200　PN16C　stainless steel	
	H	Flange DN250　PN16C　stainless steel	
	Y	Special custom	
Seal/Process temperature	P	Common seal/-40...120°C	
	G	High-temperature seal/-40...250°C with radiator	
Electronic unit	2	(4 ~ 20) mA / 24V DC / two-wire system	
	3	(4 ~ 20) mA / 24V DC / HART two-wire system	
	4	(4 ~ 20) mA / 24V DC / HART four-wire system	
	5	(4 ~ 20) mA / (85~ 265) V AC / DC / HART four-wire system	
Housing/Protection grade	L	Aluminum / IP67	
	G	Aluminum / IP67 Double chamber	
Cable entry	M	M20*l. 5	
	N	½ NPT	
Live display / Programming	A	With	
	X	Without	
Special custom	Y	Special custom	

DCRD1000C4 Radar Level Transmitter

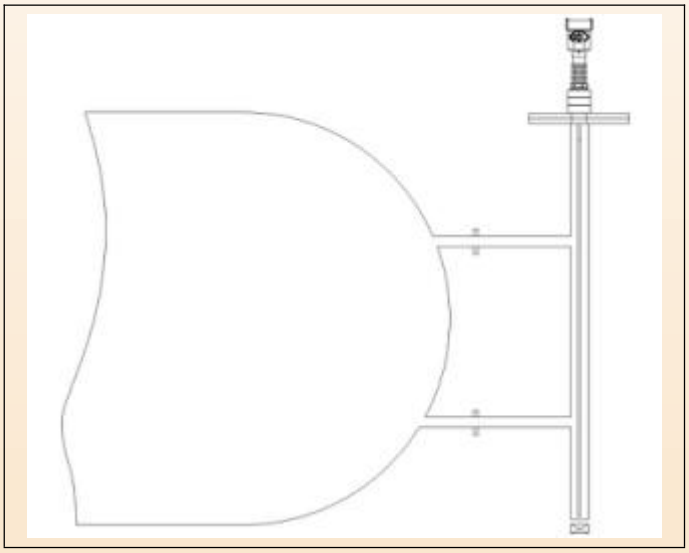
1. DCRD1000C4 Technical parameter

Application	High temperature or high pressure application liquid
Measuring range	6meter
Process connection	Screw thread, Flange
Medium Temperature	-40~400°C
Process pressure	-0.1~4MPa
Accuracy	±3mm
Frequency range	100MHZ-1.8GHZ
Anti-explosion/safety grade	Exia II CT6 Ga/Exd ia II CT6 Gb / IP67
Signal output	4~20mA/HART(Two-wire/Four-wire)

2. DCRD1000C4 Outer Demension



3. DCRD1000C4 Installation



DCRD1000C4 Model Selection

Model：DCRD1000C4　Probe type：rod type probe　Meter full scale：6000mm　Material：stainless steel（flange installation）

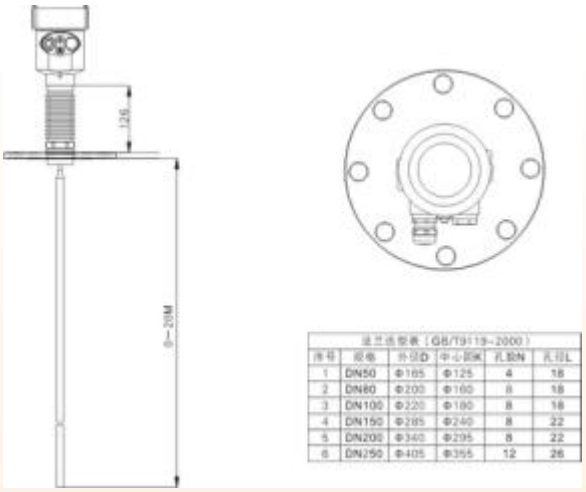
Element	Code	Parameter	Note
Anti-explosion	P	Standard (non-Ex)	
	I	Intrinsic safety (ExiaIICT6 Ga)	
	D	Intrinsic safety+Exd (Exd ia II CT6 Gb)	
Sensor/Rod type probe	A	6mm	
	B	10mm	
Process connection/Material	G	Screw thread G1½A　stainless steel	
	N	Screw thread 1½NPT　stainless steel	
	B	Flange DN80　PN16C　stainless steel	
	C	Flange DN100　PN16C　stainless steel	
	D	Flange DN150　PN16C　stainless steel	
	E	Flange DN200　PN16C　stainless steel	
	H	Flange DN250　PN16C　stainless steel	
	Y	Special custom	
Seal/Process temperature	G	High-temperature seal/-40...400°C with radiator	
Electronic unit	2	(4 ~ 20) mA / 24V DC / two-wire system	
	3	(4 ~ 20) mA / 24V DC / HART two-wire system	
	4	(4 ~ 20) mA / 24V DC / HART four-wire system	
	5	(4 ~ 20) mA / (85~ 265) V AC / DC / HART four-wire system	
Housing/Protection grade	L	Aluminum / IP67	
	G	Aluminum / IP67 Double chamber	
Cable entry	M	M20*l. 5	
	N	½ NPT	
Live display / Programming	A	With	
	X	Without	
Special custom	Y	Special custom	

DCRD1000C5 Radar Level Transmitter

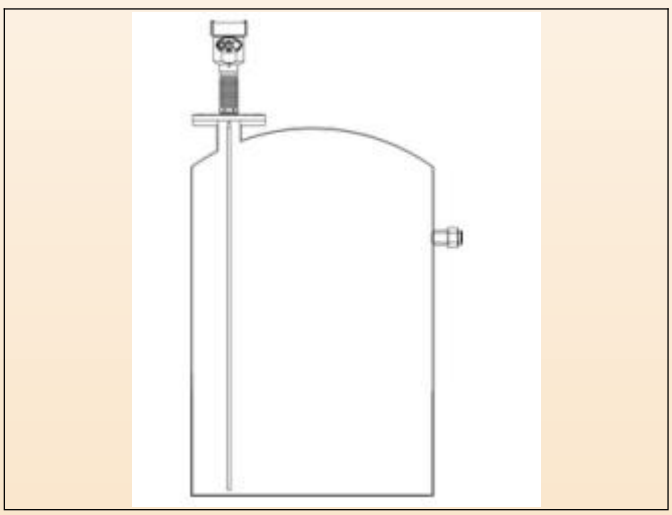
1. DCRD1000C5 Technical parameter

Application	Corrosive liquids
Measuring range	Bar type(6 meter), Cable type (20meter)
Process connection	Flange
Medium Temperature	-40~250°C
Process pressure	-0.1~2MPa
Accuracy	±3mm
Frequency range	100MHZ-1.8GHZ
Anti-explosion/safety grade	Exia II CT6 Ga/Exd ia II CT6 Gb / IP67
Signal output	4~20mA/HART(Two-wire/Four-wire)

2. DCRD1000C5 Outer Dimension



3. DCRD1000C5 Installation



DCRD1000C5 Model Selection

Model：DCRD1000C5 Probe type：anticorrosion type probe Meter full scale：6000mm Material：stainless steel（flange installation）

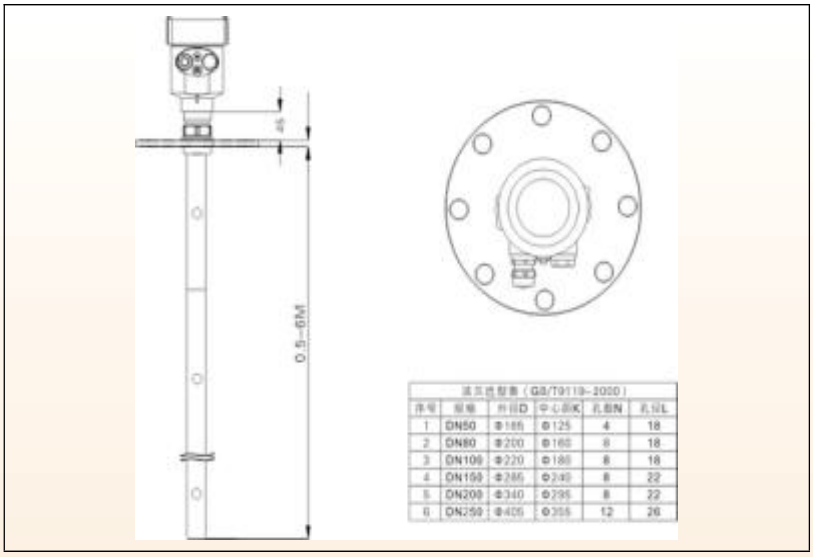
Element	Code	Parameter	Note
Anti-explosion	P	Standard (non-Ex)	
	I	Intrinsic safety (ExiaIICT6 Ga)	
	D	Intrinsic safety+Exd (Exd ia II CT6 Gb)	
Sensor/Rod type probe	A	10mm	
	B	14mm	
Process connection/Material	D	Flange DN80 PN16C stainless steel	
	E	Flange DN100 PN16C stainless steel	
	F	Flange DN150 PN16C stainless steel	
	H	Flange DN200 PN16C stainless steel	
	K	Flange DN250 PN16C stainless steel	
	Y	Special custom	
Seal/Process temperature	P	Common seal/-40...120°C	
Electronic unit	2	(4 ~ 20) mA / 24V DC / two-wire system	
	3	(4 ~ 20) mA / 24V DC / HART two-wire system	
	4	(4 ~ 20) mA / 24V DC / HART four-wire system	
	5	(4 ~ 20) mA / (85~ 265) V AC / DC / HART four-wire system	
Housing/Protection grade	L	Aluminum / IP67	
	G	Aluminum / IP67 Double chamber	
Cable entry	M	M20*l. 5	
	N	½ NPT	
Live display / Programming	A	With	
	X	Without	
Special custom	Y	Special custom	

DCRD1000C6 Radar Level Transmitter

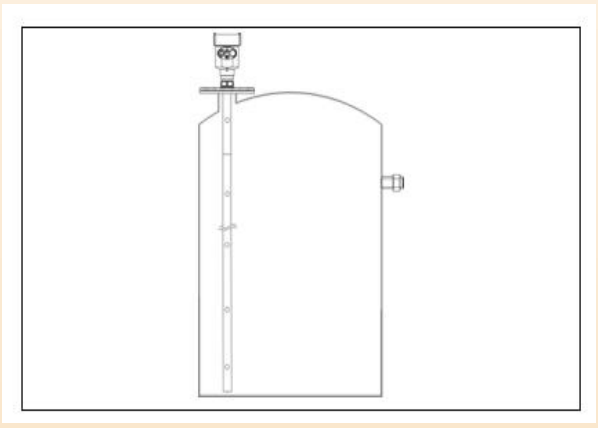
1. DCRD1000C6 Technical parameter

Application	Liquids with low dielectric constant or surface fluctuations
Measuring range	6meter
Process connection	Screw thread, Flange
Medium Temperature	-40~250°C
Process pressure	-0.1~2MPa
Accuracy	±3mm
Frequency range	100MHZ-1.8GHZ
Anti-explosion/safety grade	Exia II CT6 Ga/Exd ia II CT6 Gb / IP67
Signal output	4~20mA/HART(Two-wire/Four-wire)

2. DCRD1000C6 Outer Dimension



3. DCRD1000C6 Installation



DCRD1000C6 Model Selection

Model：DCRD1000C6　Probe type：Concentric tube type probe　Meter full scale：6000mm Material：stainless steel（flange installation）

Element	Code	Parameter	Note
Anti-explosion	P	Standard (non-Ex)	
	I	Intrinsic safety (ExiaIICT6 Ga)	
	D	Intrinsic safety+Exd (Exd ia II CT6 Gb)	
Concentric probe	A	25mm	
	B	50mm	
Process connection/Material	G	Screw thread G1½A　stainless steel 304	
	N	Screw thread 1½ NPT　stainless steel 304	
	A	Flange DN50　PN16C　stainless steel	
	B	Flange DN80　PN16C　stainless steel	
	C	Flange DN100　PN16C　stainless steel	
	D	Flange DN150　PN16C　stainless steel	
	E	Flange DN200　PN16C　stainless steel	
	H	Flange DN250　PN16C　stainless steel	
	Y	Special custom	
Seal/Process temperature	P	Common seal/-40...120°C	
	G	High-temperature seal/-40...250°C with radiator	
Electronic unit	2	(4 ~ 20) mA / 24V DC / two-wire system	
	3	(4 ~ 20) mA / 24V DC / HART two-wire system	
	4	(4 ~ 20) mA / 24V DC / HART four-wire system	
	5	(4 ~ 20) mA / (85~ 265) V AC / DC / HART four-wire system	
Housing/Protection grade	L	Aluminum / IP67	
	G	Aluminum / IP67 Double chamber	
Cable entry	M	M20*l. 5	
	N	½ NPT	
Live display / Programming	A	With	
	X	Without	
Special custom	Y	Special custom	

ACDAR-80S Radar Level Transmitter

1. ACDAR-80S Technical Parameter:

Application	All kinds of Liquid
Measuring range	10meter
Process connection	Screw thread, Flange
Medium Temperature	-40～120°C
Process pressure	-0.1～0.3MPa
Accuracy	±2mm
Frequency range	76 ~81 GHz
Anti-explosion/safety grade	IP67
Signal output	4~20mA/HART(Two-wire/Four-wire)

ACDAR-80S Model Selection

Model：DCRD1000C6　Probe type：Concentric tube type probe　Meter full scale：6000mm Material：stainless steel（flange installation）

Element	Code	Parameter	Note
Anti-explosion	P	Standard (non-Ex)	
	F	Explosion Proof	
Housing/Proection	L	Aluminum / IP68	
	G	Aluminum / IP67	
Process connection/Material	G	Screw thread G1½A　stainless steel 304	
	N	Screw thread 1½ NPT　stainless steel 304	
	A	Flange DN50　PN16C　stainless steel	
	B	Flange DN80　PN16C　stainless steel	
	C	Flange DN100　PN16C　stainless steel	
	D	Flange DN150　PN16C　stainless steel	
	E	Flange DN200　PN16C　stainless steel	
	H	Flange DN250　PN16C　stainless steel	
	Y	Special custom	
Seal/Process temperature	P	Common seal/-40...120°C	
	G	High-temperature seal/-40...250°C with radiator	
Electronic unit	2	(4 ~ 20) mA / 24V DC / two-wire system	
	3	(4 ~ 20) mA / 24V DC / HART two-wire system	
	4	(4 ~ 20) mA / 24V DC / HART four-wire system	
	5	(4 ~ 20) mA / (85~ 265) V AC / DC / HART four-wire system	
Housing/Protection grade	L	Aluminum / IP67	
	G	Aluminum / IP67 Double chamber	
Cable entry	M	M20*l. 5	
	N	½ NPT	
Live display / Programming	A	With	
	X	Without	
Special custom	Y	Special custom	

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